

ENVIRONMENTAL NEWS



Newsletter of the N.H. Department of Environmental Services

July/August 2003

Governor's Message

Balancing economic development with environmental quality

One of the secrets of success for New Hampshire's government lies with its ability to be readily accessible by its constituents, be responsive to their needs, and be receptive to cultivating meaningful partnerships with the private sector. For, it is through such partnerships that the most efficient use of resources can be achieved.



Governor Benson

The historical partnership between the Department of Environmental Services (DES) and the Department of Resources and Economic Development (DRED) is geared toward providing that "balance" between sound use of natural resources and support for a robust economy. DES provides access to comprehensive permitting guidance through its *Guidebook for Environmental*

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New commissioner hits the ground running Vows hands-on approach

Mike Nolin, DES's new commissioner, was on the job merely three weeks and he had already joined EPA Administrator Whitman and Governor Benson in recognizing the state's school bus anti-idling initiative; introduced himself to the DES Concord staff in a "walk-about" through the entire agency; spent a Saturday on Lake Winnepesaukee with DES staff and later members of the New Hampshire Lakes Association learning about shoreland protection and development issues, exotic aquatic

Nolin, *continued on page 6*



Derek Bennett and David Wunsch, N.H. Geological Survey, examine the rock fall below the former site of the Old Man of the Mountain. Wunsch is one of several state officials and local businessmen to serve on the Governor's Old Man of the Mountain Revitalization Task Force. Photo by Rick Chormann.

Red Tide in coastal N.H.

by Chris Nash, DES Shellfish Program Manager

For the first time in five years, New Hampshire closed its coast this summer to shellfish harvesting due to Red Tide.

The term "Red Tide" refers to a reddish discoloration of seawater following an intense bloom of some species of microscopic algae, which are single-celled plants that live in

Red Tide, *continued on page 3*

Governor's Message

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Permits in New Hampshire (www.des.state.nh.us/PermitGuide/), pre-application meetings, and on-site visits, while DRED counsels prospective business clients on the availability of existing infrastructure, utilities, tax advantages, skilled workforce, and training opportunities. Through this partnership, New Hampshire has successfully attracted, established, and retained such companies as the Wal-Mart Distribution Center in Raymond, Voith Sulzer in Farmington, Fidelity Investments in Merrimack, and the Red Hook Ale Brewery in Newington.

DES and DRED have collaborated by providing education and outreach to members of the New Hampshire Economic Development Association (NHEDA) – in effect, putting the resources of the state into the hands of those who can use them most. It is through organizations like the NHEDA that economic development in our communities is facilitated, while achieving the most efficient use of limited funds by those communities, and preserving clean water, air, and land. DES also serves as a facilitator of millions of dollars in pass-through funds from the federal government to ensure that water, sewer, and other infrastructure needs are constructed, maintained, and upgraded as necessary to support continued economic growth. Together, these partnerships have directly contributed to an economy and way of life that are second to none and the envy of many.

A high quality of life, coupled with a business-friendly environment, has set New Hampshire apart from other states in the Northeast, and has given it the reputation of being both a stable place to do business and a safe environment in which prospective workers (and their families) can live, work and play – and prosper.

I urge you to contact DES by telephone at (603) 271-3306 or email at pip@des.state.nh.us; or DRED at (603) 271-2591 or by email at rduddy@dred.state.nh.us to see how this partnership can benefit you.

Craig R. Benson
Governor



Thin line of smog along the New Hampshire seacoast provides a tangible reminder of the real state of our atmosphere and the need for public stewardship. For information on ozone and air quality issues, please call DES at 1-800-498-6868, or go to www.des.state.nh.us/airdata.

NHGS hosts third annual mappers workshop

The New Hampshire Geological Survey held its third annual Mappers Workshop in June. The workshops were initiated to encourage communication between NHGS staff and the contract mappers who conduct surficial geological mapping for the state through the USGS/NHGS STATEMAP cooperative geologic mapping program. Geological maps provide important sources of information that are routinely used for making decisions regarding land-use planning, water resources exploration and development, and the management of natural resources.

The first mapping workshop, held in June 2001, was conducted specifically for the benefit of the contract mappers, and the program mainly covered proposed mapping projects, details about the State's contract system, and programmatic changes. In 2002, the program was expanded to include presentations from university professors, students, and other geoscientists who participate in the EDMAP academic cooperative mapping program or other New Hampshire mapping activities. This year's morning session was opened to all interested DES geologists to familiarize them with the program, describe what the geological map products are available to support their work that result from the program, and to aid in DES scientists' professional growth.



State Geologist David Wunsch stated that "as the mapping program grows, I hope to open the technical session to all geologists in New Hampshire, where licensed geologists can update their knowledge of geologic information in the state, and gain CEUs toward their professional geologist license requirements." ■

ENVIRONMENTAL NEWS

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Red Tide

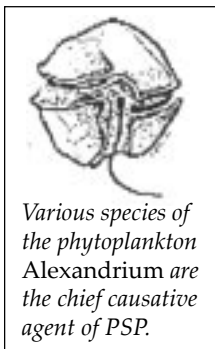
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the ocean. Most species of algae are beneficial to the ecology of the ocean, serving as an important food source for many types of marine organisms. Molluscan shellfish (clams, oysters, mussels, and others) filter large amounts of water through their bodies as part of their normal feeding process. Unfortunately, some algal species produce potent neurotoxins, which can concentrate within the shellfish. Eating contaminated shellfish, whether raw or cooked, can be fatal. Shellfish harvesters and consumers should note that despite the term “red tide,” these algal blooms do not always discolor the water, nor do they actually have anything to do with the tides.

What causes Red Tide?

There are several species of algae that can cause various illnesses, but the main illness in New Hampshire coastal waters is Paralytic Shellfish Poisoning, or PSP. Various species of the phytoplankton *Alexandrium* (see diagram) are the chief causative agents of PSP in the Gulf of Maine.

Alexandrium blooms typically occur in the spring and early summer, in response to increased sunlight and nutrients. Other water conditions, such as low salinity and warmer temperatures, are also associated with *Alexandrium* blooms.

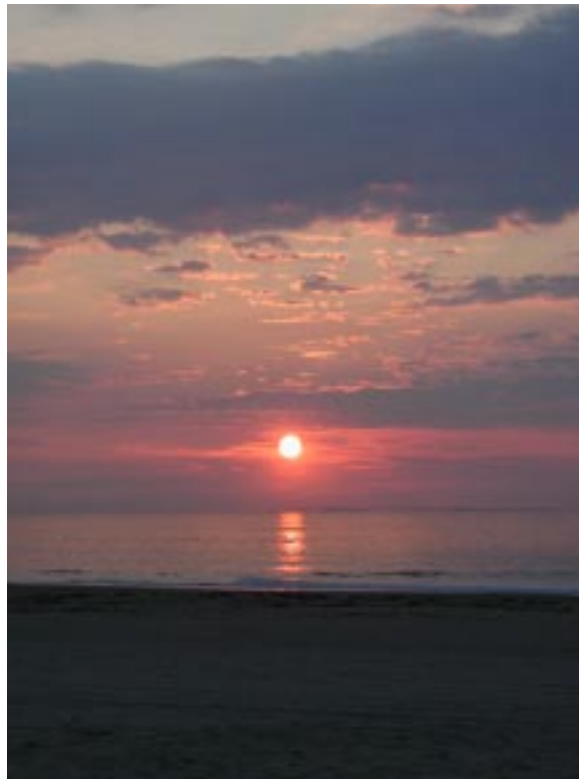


*Various species of the phytoplankton *Alexandrium* are the chief causative agent of PSP.*

The onset of symptoms is rapid, usually within two hours of consumption. Symptoms include tingling, burning, numbness, drowsiness, incoherent speech, and respiratory paralysis, and can last a few days in non-lethal cases. Severe cases can result in death by respiratory arrest within 24 hours of consumption. There is no antidote for PSP, but supportive therapy and treatment is usually adequate, and survivors typically make a full recovery.

How does DES protect shellfish consumers?

The most effective way to prevent PSP illnesses is by



Despite the term “red tide,” these algal blooms do not always discolor the water, nor do they actually have anything to do with the tides. A sunrise over Hampton Beach.

established on Star Island, Isles of Shoals. This site provides critical information on PSP levels in offshore waters, which is where the algal blooms tend to originate. These data are extremely useful to not only help anticipate the occurrence of dangerous PSP levels in near-shore areas, but also to evaluate the suitability of offshore waters for activities such as aquaculture.

New Hampshire shellfish waters are closed for harvesting when the PSP toxin levels in blue mussels reach the regulatory threshold of 80 micrograms of toxin per 100 grams of mussel tissue. Because PSP toxin levels can change very rapidly over the course of just a few days, waters may be closed for lower, but rising, amounts of toxin.

Harvesters should consult the “Clam Hotline” (1-800-43-CLAMS) frequently for updated information regarding the open/closed status of shellfish harvesting areas. For more information on shellfish harvesting in coastal New Hampshire, visit the DES Shellfish Program website at www.des.state.nh.us/wmb/shellfish. ■

large-scale monitoring programs (assessing toxin levels in mussels, oysters, and/or clams), and rapid closures of harvesting areas known or suspected to be toxic. PSP monitoring in New Hampshire has been ongoing for several years, typically consisting of weekly testing of blue mussels—which tend to accumulate the PSP toxin quicker than other species of shellfish—from Hampton/Seabrook Harbor. The testing occurs from April through the end of October, the period when the algae may be active. Data-sharing with Maine and Massachusetts has been an integral part of ensuring an adequate, large-scale monitoring program.

In partnership with the Isles of Shoals Steamship Company, the Star Island Corporation, and the volunteers of the Great Bay Coast Watch, DES expanded PSP monitoring in offshore tidal waters in 2000. A new monitoring site was



Blue mussels tend to accumulate the PSP toxin quicker than other species of shellfish.

DES locates new ozone air monitor and exhibit at Odiorne Point

Summer ... Seacoast ... Smog. Ground-level ozone (smog) is often concentrated along the coast on hot summer days. That's why DES and the staff at the Seacoast Science Center at Odiorne Point State Park in Rye created a new exhibit to explain ground-level ozone and the value of air monitoring technology. Visitors can now view ozone levels being measured and recorded in "real time" through instruments and equipment on display inside the Center. The data collected from this station also helps DES track air pollution patterns, forecast air quality on a daily basis, and issue public health warnings when air quality is predicted to be unhealthy.

DES chose Odiorne Point State Park for this station because it is an ideal location to show how ozone pollution is transported along the seacoast from upwind urban areas like Boston. This site is part of New Hampshire's regional air quality network, but is unique in that it's one of the few sites in the state where air quality is truly visible as a yellow-brown haze over the ocean. Atop Mt. Washington and at the coast are the two areas where ozone and other air pollutants are most visible. That powerful image of air pollution, both visible and monitored via sophisticated instruments like the ozone analyzer located here, provides a tangible reminder of the real state of our atmosphere and the need for public stewardship.



Visitors to the Seacoast Science Center can now view ozone levels being measured and recorded by the new air monitoring equipment atop the Center.



The Seacoast Science Center at Odiorne Point State Park in Rye.

ness of air quality and health issues, and educate the public about the causes and effects of ozone pollution," said Kathy Brockett, Education/Outreach Supervisor, DES Air Resources Division.

Each year, the Center conducts over 2,000 programs for 30,000 participants, and has nearly 100,000 visitors, providing DES with the perfect site for bringing its air quality messages to the public. "We are hoping viewers take away two messages from this ozone monitoring exhibit," noted Brockett. "The first message is how they can protect their health when ozone levels are high, and the second message is what they can do to reduce air pollution."

For information on the ozone monitoring station at the Seacoast Science Center and New Hampshire's air quality monitoring network, contact Kathy Brockett at (603) 271-6284 or kbrockett@des.state.nh.us. For information on displays and programs at the Seacoast Science Center contact Tracy Fredericks at (603) 436-8043. ■

Daily air quality information

Hot weather may be good for all those summertime activities, but it could also bring poor outdoor air quality. During a typical summer, New Hampshire experiences as many as 10 days when the air is unhealthy due to high concentrations of ground-level ozone, or smog.

Since 1996, every May through September, DES provides daily information on expected ozone air quality levels throughout the state. For daily ozone forecasts, call toll-free 1-800-935-SMOG, or visit www.des.state.nh.us/airdata. In addition, animated ozone maps showing the formation and movement of ground-level ozone across the eastern U.S. are available on a daily basis from EPA at www.epa.gov/airnow.

An "Air Quality Action" day is declared in parts of New Hampshire when ground-level ozone is forecast to reach unhealthy levels. On these days, people are encouraged to take precautionary measures to protect their health, especially in the afternoon when ozone levels tend to be the highest. In addition, people are encouraged to take actions to reduce emissions of pollutants that contribute to ground-level ozone formation. The air pollutants that cause smog come from cars, trucks, buses, power plants and industrial facilities.

People can sign up to be notified whenever an Air Quality Action Day has been declared by visiting EPA's Smog Alert website at www.epa.gov/region01/eco/ozone/smogalrt.html, or by calling DES at (603) 271-1370. By signing up, people will automatically be notified by email or fax when unhealthy concentrations of ground-level ozone are predicted in their area.

For more information on ozone and air quality issues, please call DES at 1-800-498-6868. ■

"Plan New Hampshire" awards

DES played key roles in four of the five projects that received "Merit Awards of Excellence" at Plan New Hampshire's annual awards ceremony held recently. Plan NH is a non-profit foundation largely comprised of architects, engineers, planners, designers and community development professionals that encourages improvement in New Hampshire communities through excellence in planning, design and development. The four projects in which DES played key roles included the Whitney Screw revitalization project in Nashua, the Corporate Center project at Horseshoe Pond in Concord, the restoration of Public Service of New Hampshire Corporate Headquarters project in Manchester, and the Derry Municipal Center project.

The DES petroleum reimbursement program provided over \$200,000 for gasoline contamination removal at the Whitney Screw brownfields site. The DES Brownfields Program provided liability protection and a revolving loan, and the Environmental Protection Agency provided brownfields pilot funding at this site. Over 1,300 gallons of gasoline product has been removed from the water table using funds provided by the Oil Discharge, Disposal and Cleanup Fund.

For the award winning Corporate Center at Horseshoe Pond project, DES completed reviews and issued a covenant not to sue. For the restoration of Public Service of New Hampshire Corporate Headquarters project in Manchester, DES's petroleum reimbursement fund program is currently processing a large reimbursement claim for cleanup of this key millyard property.

Although there was a great deal of local opposition initially to the Derry Municipal Center project, the project won over many of its critics by being completed on time and under budget,

and because it is one of the most attractive new government buildings in the state. DES provided the Town over \$10,000 in petroleum reimbursement funding for the Fred Fuller site that was addressed as part of the project. DES

also assisted the Town with its efforts to explain to the public the project's positive environmental benefits.

Please join us in congratulating Mike Wimsatt, Robin Mongeon, Joyce Bledsoe, Sarah Kirn, Ralph Wickson, and many others for their role in these projects. ■

Charlie Dyer receives highest praise from national enviro lab

by Tony Giunta, Administrator, DES Water Supply Engineering Bureau

As all of you know, delivering safe drinking water is a multi-faceted team effort. And no one does it better than New Hampshire.

An important part of that great team is DES's Lab Certification Program headed up by Charlie Dyer. Behind Charlie's low-key, quiet demeanor, he's a nationally recognized expert in his field.

Case in point, Charlie recently attended the National Environmental Laboratory Accreditation Conference (NELAC). While there, his peers from across the nation recognized his outstanding expertise in lab assessments by exempting him from rigid mandatory training requirements. He was the only assessor in the country who earned this waiver and was the only assessor awarded a Certificate of Completion personally signed by the NELAC Executive Director for the NELAC Board of Directors.

Again, another member of the WSEB Bureau who quietly does a great job, without much fanfare; yet is nationally recognized as a leader in his or her field of expertise. Often we're so busy dealing with the high priority "stuff," we forget to stop and recognize those who do such good work, day in and day out. Congratulations Charlie, and thanks to you and others in this Bureau who continue to set us way above the pack. ■

Pierce Rigrod recognized for recycling efforts

The Northeast Resource Recovery Association recently awarded Pierce Rigrod, DES Solid Waste Technical Assistance Section, with the 2003 "Sami Izzo Recycler of the Year Award" for his waste reduction work with the New Hampshire ski and tourism industries.

Pierce has been working with the New Hampshire Lodging and Restaurant Association and Public Service of New Hampshire to develop the "Sustainable Lodging Program." This multi-media environmental program provides free environmental audits and information on best management practices for reducing environmental

Rigrod, continued on page 8



Duncan Watson (left), President of the NRRA Board of Trustees, presents Pierce Rigrod with the "Recycler of the Year" award.

Nolin

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weeds, and other key lake issues; met with the N.H. Business and Industry



DES Commissioner
Mike Nolin

Association to forge a stronger private/public business partnership; and the list goes on.

"I plan to be very visible," said Nolin in a recent interview. "As soon as I can, I

want to get out to all of our regional offices: Pease, Gorham and the others. I plan to work hand-in-hand with the other agencies, particularly DOT, DRED, Safety, and Fish and Game."

Nolin was sworn in as DES commissioner "16 years to the day" of leaving the agency, at which time he was administrator of the Public Information and Permitting Unit. He's a lifelong resident of New Hampshire, and has demonstrated a commitment to the state's environmental issues throughout his career. For several years in the '70s, he was water quality director with the Lakes Region Planning Commission, and he was a consultant on water quality issues in Rockingham County. "Working in both regions gave me a broader perspective on the state's water needs," remarked Nolin. "Each region has a different set of issues and each has its own characteristics. It was good background."

Prior to becoming commissioner, he was a principal and the corporate vice president of Hoyle, Tanner and Associates, Inc., the largest New Hampshire-based consulting engineering firm. While with HTA, Nolin was involved in managing a wide range of environmental and transportation projects.

Nolin has also served several New Hampshire governors on a number of boards, from Gov. Walter Peterson to Gov. Benson. He is the longest serving

member of the Transportation Enhancement Advisory Committee, having served under three governors. In addition to his position on the Lakes Region Planning Commission, he has served on the State Wetlands Board, and in 1995 was the Governor's designee to the Clean Air Act Study Committee. He currently belongs to a number of environmentally related professional associations and societies.

When asked of his impressions of DES upon his return to the agency Nolin said, "I'm impressed with the number of people that are still here from when I left. There are a lot of good and dedicated people working for the agency. It's a terrific opportunity for the newer staff to have the historical perspective on issues that the long-standing staff can provide.

"DES was about half the size and less complex," remarked Nolin about DES's early years. "The environmental field today is far more sophisticated. We need to keep abreast of the times—and it's an exciting time."

Nolin sees the challenges for DES laying primarily in how to become more efficient. "We need to accomplish what we do in a more streamline mode. We need to eliminate duplication of services and consolidate to do a better job. We also need to better understand the needs of New Hampshire citizenry—businesses, towns, individuals. And we need to work more efficiently with other state agencies. We'll be looking to all these groups for input."

While Nolin is "all business" on the job, his family is his "number one interest in life." He and his wife, Paulette, enjoy their four grown children and their four grandchildren. He is also known to enjoy a little golf, concerts, the Granite State Opera, and traveling abroad when time permits.

Welcome back to DES, Commissioner Nolin! ■

Parker Morgan: Shy and Retiring?

At least it's half right. Parker Morgan of the DES Waste Management Division retired on June 27 after 27 years in State service. Parker is well known to the North Country solid waste operators as their own primary planner. He has conducted many a site visit, usually by motorcycle. Parker is responsible for writing the *DES Transfer Station Design Manual*, and has been a great help in developing the newest version of the *Solid Waste Operator Training Manual*. He was also the most recent editor of *The Rubbish Resource*.

Parker started state employment with New Hampshire Employment Security. In less than a year, he moved



Parker Morgan
retires after 27 with
State.

to the Department of Environmental Services and worked in the Water Division for 15 years where he ran the Milford and Keene Subsurface System Bureau offices. In 1991, he became a principal

planner with the Waste Management Division

Parker intends to spend the first several years of his retirement traveling. He specifically wants to go to Alaska, Australia and Nova Scotia. He recently started to play the mandolin and will be able to use the extra time to perfect his skills with this instrument. As a good friend and a source of history and information on DES, he will certainly be missed. Wave to him as he cruises by on his motorcycle. ■

Oil cleanup along the Ashuelot River successful

Promotes economic revitalization of mill

by Mark Ledgard, DES Oil Remediation & Compliance Bureau

In 2002, the American Tissue Mills of New Hampshire reported two separate discharges of oil into the Ashuelot River. The oil was from two leaking 35,000-gallon underground storage tanks that contained #6 and a mixed #2/6 oil. The oil discharge threatened the nearby fisheries and waterfowl habitat, and more than a mile downstream, the Town of Hinsdale maintains two water supply wells located along the river.



Front of mill showing area of #2/6 oil mix release and containment booms.

Economic downturn resulted in bankruptcy for the American Tissue Mills of New Hampshire, which was unable to complete the necessary cleanup work. Working closely with the U.S. Environmental Protection Agency's Region I Office of Site Remediation and Restoration and the U.S. Coast Guard, the DES Oil Remediation and Compliance Bureau initiated cleanup of the oil contamination.

Several site factors contributed to the complexity of contaminant movement, subsurface investigations and subsurface cleanup efforts. First, the building is situated with its back door against a steep mountain ridge and the Ashuelot River only 20 feet to the front. The mixed #2/6 oil tank was located in a sand-filled bunker at the rear of the building against the steep mountain ridge. Second, the building is constructed on shallow bedrock with a maze of footings, blast rock, cisterns and utility raceways. The front of the building was formerly



Sandbag and hard boom sediment and oil discharge control during excavation of #6 oil contaminated soil.

the sluiceway for mill power wheels. The sluiceway contained several concrete structures and was backfilled with boulders. The #6 oil tank was located downstream in the front part of the building adjacent to the site's only vehicle access bridge. The #6 oil had seeped into and beneath the river bed. Along this reach of the Ashuelot River, two hy-



Excavation of #6 oil contamination from riverbank.

droelectric dams control the river flow. The river has a gravel bottom and is filled with boulders. The river levels seasonally fluctuate 10 feet or more, and can fluctuate on any given day based on hydroelectric needs.

Between August and November 2002, State contractor Cyn Environmental Services and the consulting firm of Sanborn Head & Associates removed the two 35,000-gallon underground storage tanks, and excavated and disposed of 1,600 tons of contaminated soil. An emergency wetland permit was secured for the excavation and restoration of the riverbank, which was coated with oil. The cleanup activities were successful in mitigating the immediate impacts to the river. An oil interceptor trench and oil recovery well were installed to capture oil that continued to migrate out from beneath the building and bridge

Mills, continued on next page



Commissioner Nolin (fourth from left) joins Gov. Benson (sixth from left), former EPA Administrator Christine Todd Whitman (in pink), local officials, and representatives from the N.H. School Transportation Association in recognizing the state's School Bus Anti-Idling Initiative at a ceremony held in June. In 2002, DES and NHSTA launched a voluntary initiative to protect school children and bus drivers from excessive exposure to diesel exhaust emissions from school buses. More than 25 different fleets that have officially adopted anti-idling policies, representing 60 percent of the school buses in the state. The next phase of New Hampshire's clean school bus campaign will focus on reducing school bus emissions through retrofits and cleaner fuels. DES and NHSTA hope to work with EPA to obtain funding for implementing such projects in New Hampshire.

Mills

continued from previous page

abutment, and to prevent future impacts to the river. The cost of the cleanup effort was approximately \$400,000.



Riverbank beside mill after restoration.

In addition to the successful cleanup, DES officials and the state Attorney General's Office successfully negotiated with the new owner, Atlantic Paper and Foil of New Hampshire, to assist DES in re-

covery of state-expended cleanup costs, and to continue with future corrective actions as required by DES. The new owner also agreed to upgrade and bring the facility into compliance with current environmental regulations.

These efforts resulted in the protection of public health and the environment, while providing an opportunity for revitalization of the area's important economic base. ■

Rigrod

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impacts at New Hampshire hotels, inns and related overnight accommodations.

Pierce has also worked with the New Hampshire Travel Council to establish a "Sustainable Business Award" for its members. The award was presented at the annual Governor's Conference on Tourism to the Bretton Woods Ski Resort in Bretton Woods. Pierce approached its management and initiated what is currently one of the only comprehensive recycling programs at a ski facility in New Hampshire.

Congratulations Pierce! For more information on the Sustainable Lodging Program, please go to www.des.state.nh.us/swtas/greenlodging/ or contact Pierce Rigrod at (603) 271-3713. ■



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